

REMARKS/ARGUMENTS

Claims 1-13 are canceled without prejudice; and new claims 14-29 are pending. No new matter has been introduced.

Applicants respectfully request reconsideration of the claim rejections in view of the following arguments.

5. The 35 U.S.C. 103(a) rejection of claims 1-5, 7-10 and 12 over Anderson (US 6,168,948) in view of Nelson (US 5,770,029) and Wilding (US 5,726,026)

This rejection is now construed to apply to claims 14-29.

Applicants respectfully submit that independent claim 14 is patentable over Anderson (US 6,168,948) in view of Nelson (US 5,770,029) and Wilding (US 5,726,026) because, for instance, none of the references discloses or suggests the combination of steps of introducing the sample into a cartridge having a lysing chamber containing at least one filter having a pore size sufficient to capture the cells or viruses in the sample as the sample flows through the lysing chamber, and further containing beads for rupturing the cells or viruses; forcing the sample to flow through the lysing chamber to capture the cells or viruses with the filter; placing a lysis buffer in the lysing chamber; and agitating the beads to lyse the cells or viruses, wherein the beads are agitated by sonicating the lysing chamber using an ultrasonic transducer coupled to a wall of the lysing chamber.

In Anderson, a textured wall 1906 has antibodies 1912 that bind to corresponding cell receptors within the sample. Thus, Anderson teaches a different method for cell capture. Also, in this embodiment of Anderson in which cells are captured on a textured wall surface, the cells are lysed by the introduction of a lysing agent, such as chaotropic salt, heating them in a hypotonic solution, or adding an enzymatic lysing agent such as protenase K. Wilding also teaches a different method comprising capturing cells on a wall surface and then forcing the cells to flow into piercing protrusions for cell lysis. Nelson does not teach capturing cells for lysis at all, and thus does not remedy the shortcomings of Anderson and Wilding in failing to teach Applicants' method recited in claim 14.

For at least the foregoing reasons, claim 14 and claims 15-19 depending therefrom are patentable.

6. The 35 U.S.C. 103(a) rejection of claims 6, 11 and 13 over Anderson (US 6,168,948) in view of Nelson (US 5,770,029) and Wilding (US 5,726,026) taken further in view of Henco (US 5,652,141)

This rejection is now construed to apply to dependent claims 24, 27 and 29 which depend from independent claim 14.

The reference of Henco fails to remedy the shortcomings of Anderson, Nelson, and Wilding in teaching Applicants' method as recited in claim 14. Moreover, Applicants believe it would be physically impossible to agitate beads to lyse cells in the porous matrix of Henco's device.

Thus, the combination of references does not make obvious independent claim 14 and therefore does not render unpatentable dependent claims 24, 27 and 29.

7. The rejection of claims 1-5, 7-10 and 12 under 35 U.S.C. 103(a) as being obvious over any of the following references: Pourahmadi (US 6,440,725 or US 2002/0055167); McMillan (US 2002/0039783); Petersen (US 2002/0042125); McMillan (US 2002/0045246) in view of Nelson (US 5,770,029) and Wilding (US 5,726,026)

Applicants respectfully request removal of this rejection because the present application claims priority from provisional application Ser. No. 60/136,703 filed May 28, 1999 which is before the June 25 1999 US filing date of the references and because the subject matter of the Pourahmadi (US 6,440,725 or US 2002/0055167), McMillan (US 2002/0039783), Petersen (US 2002/0042125), and McMillan (US 2002/0045246) references and the claimed invention were, at the time the invention was made, owned by the same entity (Cepheid, the current assignee of record) or subject to an obligation of assignment to Cepheid. Copies of the assignment documents for application Ser. No. 09/583,807 which is the parent application of the present application Ser. No. 09/800,590 and for application Ser. No. 09/331,911, now US Patent 6,440,725, which is the parent application for Pourahmadi (US 2002/0055167), McMillan (US

2002/0039783), Petersen (US 2002/0042125), and McMillan (US 2002/0045246) are filed herewith.

8. The rejection of claims 6, 11 and 13 under 35 U.S.C. 103(a) as being obvious over any of the following references: Pourahmadi (US 6,440,725 or US 2002/0055167); McMillan (US 2002/0039783); Petersen (US 2002/0042125); McMillan (US 2002/0045246) in view of Nelson (US 5,770,029) and Wilding (US 5,726,026) taken further in view of Henco (US 5,652,141)

Applicants respectfully request removal of this rejection because the present application claims priority from provisional application Ser. No. 60/136,703 filed May 28, 1999 which is before the June 25 1999 date cited by the Examiner and because the subject matter of the Pourahmadi (US 6,440,725 or US 2002/0055167), McMillan (US 2002/0039783), Petersen (US 2002/0042125), and McMillan (US 2002/0045246) references and the claimed invention were, at the time the invention was made, owned by the same entity (Cepheid, the current assignee of record) or subject to an obligation of assignment to Cepheid. Copies of the assignment documents for application Ser. No. 09/583,807 which is the parent application of the present application Ser. No. 09/800,590 and for application Ser. No. 09/331,911, now US Patent 6,440,725, which is the parent application for Pourahmadi (US 2002/0055167), McMillan (US 2002/0039783), Petersen (US 2002/0042125), and McMillan (US 2002/0045246) are filed herewith.

9. The rejection of claims 1-5, 7-10 and 12 under 35 U.S.C. 103(a) as being obvious over Pourahmadi (WO 99/33559) in view of Nelson (US 5,770,029) and Wilding (US 5,726,026)

Applicants respectfully request removal of this rejection because the present application claims priority from provisional application Ser. No. 60/136,703 filed May 28, 1999 which is before the 08 July 1999 publication date of WO 99/33559.

10. The rejection of claims 6, 11 and 13 under 35 U.S.C. 103(a) as being obvious over Pourahmadi (WO 99/33559) in view of Nelson (US 5,770,029) and Wilding (US 5,726,026) taken further in view of Henco (US 5,652,141)

Applicants respectfully request removal of this rejection because the present application claims priority from provisional application Ser. No. 60/136,703 filed May 28, 1999 which is before the 08 July 1999 publication date of WO 99/33559.

11. The provisional 35 U.S.C. 103(a) rejection of claims 1-5, 7-10 and 12 as being obvious over copending applications Ser. No. 10/006,848, 10/005, 685, 10/006,904 and 10/006,850 in view of Nelson (US 5,770,029) and Wilding (US 5,726,026)

Applicants respectfully request removal of this rejection because the present application claims priority from provisional application Ser. No. 60/136,703 filed May 28, 1999 which is before the June 25 1999 US filing dates of the copending applications and because the subject matter of copending applications Ser. No. 10/006,848, 10/005, 685, 10/006,904 and 10/006,850 and the claimed invention were, at the time the invention was made, owned by the same entity (Cepheid, the current assignee of record) or subject to an obligation of assignment to Cepheid. Copies of the assignment documents for application Ser. No. 09/583,807 which is the parent application of the present application Ser. No. 09/800,590 and for application Ser. No. 09/331,911, now US Patent 6,440,725, which is the parent application for copending application Ser. No. 10/006,848, 10/005, 685, 10/006,904 and 10/006,850, now US Patent 6,664,104, are filed herewith.

12. The provisional 35 U.S.C. 103(a) rejection of claims 6, 11 and 13 as being obvious over copending applications Ser. No. 10/006,848, 10/005, 685, 10/006,904 and 10/006,850 in view of Nelson (US 5,770,029) and Wilding (US 5,726,026) taken further in view of Henco (US 5,652,141)

Applicants respectfully request removal of this rejection because the present application claims priority from provisional application Ser. No. 60/136,703 filed May 28, 1999 which is before the June 25 1999 US filing dates of the copending applications and because the subject

matter of copending applications Ser. No. 10/006,848, 10/005, 685, 10/006,904 and 10/006,850 and the claimed invention were, at the time the invention was made, owned by the same entity (Cepheid, the current assignee of record) or subject to an obligation of assignment to Cepheid. Copies of the assignment documents for application Ser. No. 09/583,807 which is the parent application of the present application Ser. No. 09/800,590 and for application Ser. No. 09/331,911, now US Patent 6,440,725, which is the parent application for copending application Ser. No. 10/006,848, 10/005, 685, 10/006,904 and 10/006,850, now US Patent 6,664,104, are filed herewith.

13-14. The provisional double-patenting rejections in view of copending application Ser. No.10/005,685

Applicants submit herewith a terminal disclaimer herewith to overcome these provisional rejections.

15. Common Ownership with 10/005,685

The inventions of application Ser. No. 10/005,685 and this application Ser. No. 09/800,590 were commonly owned by Cepheid at the time the invention in this application was made. Copies of the assignment documents for application Ser. No. 09/583,807 which is the parent application of the present application Ser. No. 09/800,590 and for application Ser. No. 09/331,911, now US Patent 6,440,725, which is the parent application for copending application Ser. No. 10/005,685 are filed herewith.

Appl. No. 09/800,590
Amdt. dated February 23, 2004
Reply to Office Action of August 21, 2003


PATENT

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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